

CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	McNeese AP
Proposed Implementation Date:	Upon Signature
Proponent:	Joel McNeese
Location:	T12N R4W Section 31
County:	Lewis and Clark

I. TYPE AND PURPOSE OF ACTION

Joel McNeese is applying for an Alternative Practice (AP) to harvest Timber on IRA Services Trust Company land. The proposed AP includes approximately 950' along Rogers Creek (a Class I Stream) and an unnamed class III stream. This area has been impacted by insects and disease including western spruce budworm, and mountain pine beetle. The property's previous owners have done extensive road work in draws that do not meet Montana Forestry Best Management Practices.

According to MCA 77-5-301 through 307, DNRC is authorized to administer and enforce the provisions of the SMZ Law. This Law was developed to protect the public interest of water quality and quantity within forested areas; provide for standards, oversights and penalties to ensure forest practices conserve the integrity of SMZ's; provide guidelines for wildlife management within SMZ's; and allow operators necessary flexibility to use practices appropriate to site-specific conditions in the SMZ. ARM 36.11.301 through 313 further specify the design of SMZ boundaries, allowable activities and prohibitions within the SMZ, penalties and other related provisions.

According to MCA 77-5-304 and ARM 36.11.310, DNRC may approve alternative practices that are different from practices required by the SMZ Law only if such practices would be otherwise lawful and continue to conserve or not significantly diminish the integrity and function of the SMZ.

Forest Treatment would be limited to operation of a harvest inside the 50-foot SMZ, but no closer than 20 feet to the ordinary high-water mark (OHWM) unless equipment is operating while on an existing road. This treatment would be limited to slopes less than 15%. Removal below minimum retention tree standards of merchantable timber would be allowed only in order to facilitate landing operations. Additional mitigations and stipulations pertinent to this request will include:

- Only operation of harvest type machine inside the 50-foot SMZ would be allowed, no closer than 20 feet to the ordinary high-water mark (OHWM) on slopes that are less than 15%. Operation would occur in a straight in and straight out manner. Both the 50-foot buffer and the 20-foot buffers must be flagged or painted at least once every chain (66') within the harvest unit.
- Slash piles would be placed outside of the SMZ buffer.
- Operation would only occur during periods when soil disturbance can be minimized under conditions are dry or frozen ground to six inches and/or snow covered to eight inches.
- No trees shall be felled in to or across the stream with active water. Any debris from falling or skidding operations that enters the stream must be removed immediately.
- All disturbed areas within the SMZ would be grass seeded and have a slash scattered to prevent erosion and sediment from reaching stream segments.
- Small (less than 8" DBH) and brush species would be retained and protected. Merchantable (greater than 8 DBH) timber may be removed to below retention tree reequipments only to facilitate landing operations.

- No cutting of trees that grew or are growing in the immediate area of the ordinary high-water mark would be allowed.
- Leave large diameter logs when possible within the harvest units (large diameter logs defined 15" diameter and 20' long or more). These may be cull logs that are non-merchantable.
- This AP applies only to IRA Services Trust Company land, and only to areas shown on map. No other ownerships are included in this AP.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

Montana DNRC (Devin Healy), Joel McNeese.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

DNRC is not aware of other agencies besides the proponent with jurisdiction. DNRC is not aware of other permits needed to complete this project.

3. ALTERNATIVES CONSIDERED:

Alternative A –No Action: No operation of machinery inside the SMZ (50' or 100') buffer. Retention tree requirements would be observed.

Alternative B – Action: Please see *Type and Purpose of Action* for a full description of this alternative.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" if no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

Alternative A - No Action: No equipment operation would be allowed inside the SMZ buffer. Minimum retention standards would be recognized.

Alternative B – Action: Harvest equipment would operate inside of the 50-foot SMZ buffer, but no closer than 20 feet from the OHWM. Mitigation measures would include operating season restrictions that require snow covered to eight inches and/or frozen to six inches. Equipment would be required to operate in a straight in and out manner. In addition, grass-seeding and installation of erosion control measures such as a slash-filter on any disturbed area upon completion of activity would be required. Minimal direct, indirect or cumulative impacts to soil stability and compaction are anticipated due to the operation restrictions and mitigation measures.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

Alternative A - No Action: No equipment operation would be allowed inside the 50-foot SMZ. Minimum retention standards would be recognized. Hand-felling operations may introduce low levels of sediment delivery to adjacent waterbodies. Slash and down woody debris could end up in the stream course.

Alternative B – Action: The regulated operation of harvest equipment within the first 20 feet of the SMZ (50'-20' from OHWM) may introduce very low levels of sediment delivery to the stream. The 20-foot equipment exclusion zone, with mitigation measures properly installed, would be expected to provide suitable filtration for any displaced soils or increased runoff due to compacted soils in the 20 to 50 foot portion of the SMZ that the AP applies to. Increases in sedimentation would be expected to be very minimal and temporary due to operations only occurring on slopes less than 15% and application of mitigation measures. Mitigation measures include imposing operating restrictions that require ground to be dry or snow covered to eight inches and/or frozen to six inches; and requiring grass seeding and installation of erosion control measures such as a slash-filter windrow on any disturbed area upon completion of operations. DNRC may monitor AP sites to verify effectiveness. Minimal direct, indirect, and cumulative impacts to water quality and quantity are expected due to operation restrictions and mitigation measures.

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

The project is located in Montana State Airshed 6.

Alternative A – Minor Temporary impacts due to increased particulate matter from burning slash piles.

Alternative B – Minor Temporary impacts due to increased particulate matter from burning slash piles.

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Alternative A - No Action: Vegetative communities would be affected to the extent that Douglas-fir, lodgepole pine, Engelmann spruce would not be reduced to below minimum retention standards as outlined in Rule 5 of the *Montana Guide to the Streamside Management Zone Law and Rules* handbook.

Alternative B – Action: Vegetative communities would be affected to the merchantable timber maybe be reduced below minimum retention standards as outlined in Rule 5 of the *Montana Guide to the Streamside Management Zone Law and Rules* handbook. Other tree species would be retained where present and understory vegetation would be protected to the greatest extent possible.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

Alternative A – No Action: No direct, indirect, or cumulative impacts will occur. Some logging will still take place

Alternative B – Action: Operating restrictions and mitigation measures would minimize sedimentation impacts to fish habitat. Sub merchantable trees and brush would be retained and protected to the greatest extent possible to provide shade. Minimal direct, indirect or cumulative impacts to aesthetics are anticipated due to the length of the stream segment, location of stream segment, operation restrictions and mitigation measures. (See attached list for *Species of Concern*)

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

Alternative A – No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B – Action: If a sighting of any of the endangered listed species (or evidence such as nests, dens, etc.) occurs, operations would be halted, or not allowed, until further assessment can take place. See attached list for Species of Concern

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

A systematic inventory of such resources has not occurred. Because the project is not located on state land, the DNRC has no jurisdiction to require private landholders to conduct professional level inventories to identify or develop treatment plans for National Register eligible properties.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

Alternative A – No Action: No direct, indirect, or cumulative impacts will occur

Alternative B – Action: No direct, indirect, or cumulative impacts will occur

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B Action: No direct, indirect, or cumulative impacts are anticipated to occur.

IV. IMPACTS ON THE HUMAN POPULATION

- | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none">• RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.• Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.• Enter "NONE" if no impacts are identified or the resource is not present. |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

Alternative A – No Action: No direct, indirect, or cumulative impacts are anticipated to occur.

Alternative B – Action: No direct, indirect, or cumulative impacts are anticipated to occur.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

Alternative A – No Action: Project would continue without mechanical removal of trees inside SMZ with negligible impact to employment.

Alternative B – Action: Negligible impact to employment.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

Alternative A- No Action: Negligible amounts.

Alternative B- Action: Negligible amounts.

18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

Alternative A- No Action: No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated occur.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated occur.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

Alternative A- No Action: No direct, indirect, or cumulative impacts will occur.

Alternative B- Action: No direct, indirect, or cumulative impacts are anticipated to occur.

EA Checklist Prepared By:	Name: Devin Healy	Date: 6/10/2019
	Title: Helena Unit Forester	

V. FINDING**25. ALTERNATIVE SELECTED:**

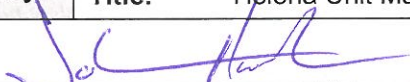
Alternative B

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

No significant impacts to the integrity and function of the SMZ will occur with the implementation of operating restrictions and mitigation measures. As proposed, with mitigations, I do not anticipate any significant direct, indirect or cumulative effects from the implementation of the selected alternative. See Section 25 of this document to review mitigation measures.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

☐ EIS ☐ More Detailed EA ☒ No Further Analysis

EA Checklist Approved By:	Name: John Huston
	Title: Helena Unit Manager
Signature: 	Date: 6/14/19



s and Conservation | USDA FSA, DigitalGlobe, GeoEye

Species of Concern 7 Species Filtered by the following criteria: Townships = 013, 004, 011 (based on mapped Species Occurrences)									
MAMMALS (MAMMALIA)									
SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS USFWS	USFWS USFWS	USFWS USFWS	USFWS USFWS	USFWS USFWS	TOWNSHIP = 013, 004, 011 (based on mapped Species Occurrences)
		G4	S3						
<i>Cynomys ludovicianus</i> Black-tailed Prairie Dog	Squirrelidae Squirrels								
<i>Lasius chereus</i> Hoary Bat	Vespertilionidae Bats								
<i>Myotis lucifugus</i> Little Brown Myotis	Vespertilionidae Bats								
BIRDS (AVES)									
SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS USFWS	USFWS USFWS	USFWS USFWS	USFWS USFWS	USFWS USFWS	TOWNSHIP = 013, 004, 011 (based on mapped Species Occurrences)
		G5	S3						
<i>Aquila chrysaetos</i> Golden Eagle	Accipitridae Hawks / Eagles								
<i>Ardea herodias</i> Great Blue Heron	Ardeidae Herons								
<i>Catharus fuscescens</i> Veery	Turdidae Thrushes								
<i>Falco peregrinus</i> Peregrine Falcon	Falconidae Falcons								



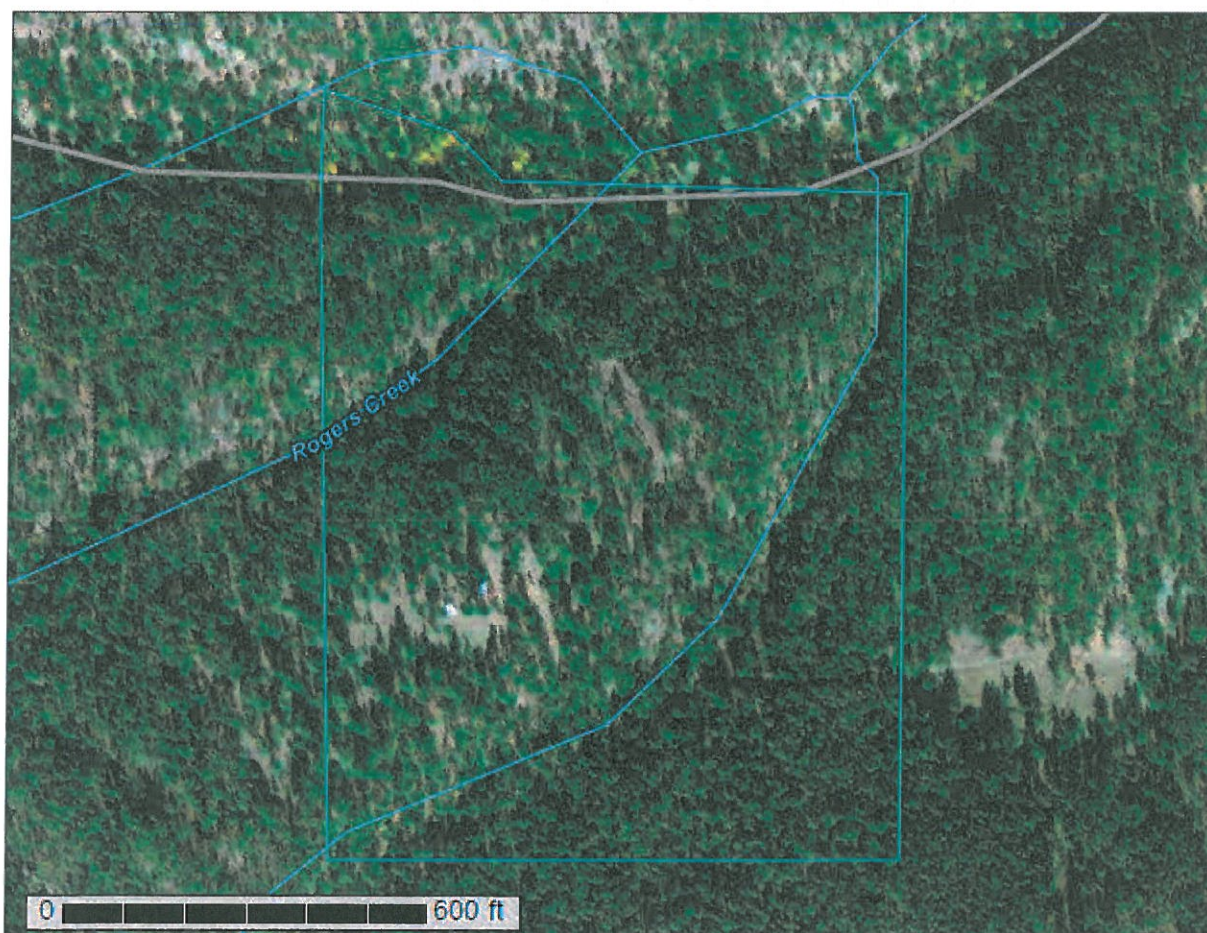
United States
Department of
Agriculture

NRCS

Natural
Resources
Conservation
Service

A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Lewis and Clark County Area, Montana**



June 14, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map

